

REMARKS

Claims 1-26 were pending. Claims 1, 5, 6 and 11 have been amended. Claims 2-4, 9 and 18-20 have been canceled without prejudice or disclaimer of subject matter. Claims 21-26 are allowed. No new claims have been added. Accordingly claims 1, 5-8, 10-17 and 21-26 are pending.

Claims 1-8 and 11-20 were rejected under 35 U.S.C. § 102(b) as being anticipated by Rahimi *et al.* (US 5,271,838). Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Rahimi *et al.*

Allowable Subject Matter

Applicants thank the Examiner for his indication of allowable subject matter in claims 21-26. These claims have not been amended and are presented as original in this amendment.

Examiner Interview

Applicants thank Examiner Kershteyn for his time and willingness to discuss this pending matter. A telephone interview was conducted with the Examiner to discuss the rejection of the claims as made in the outstanding Office Action. Applicants proposed amending the claims. The claim amendments proposed to the Examiner are those made above. While no agreement was reached, the Examiner agreed to consider the proposed amendments in view of the cited references.

Rahimi *et al.* (US 5,271,838)

Rahimi *et al.* ("Rahimi") discloses a filter assembly having a housing with

an inlet and an outlet, at least two filter elements stacked inside the housing, and a spacer positioned between the filter elements. The spacer includes a body having an opening that is larger than the inner diameter of at least one of the filter elements and is no smaller than about one-third of the outer diameter of a filter element. The spacer is free of any structure that extends into the opening.

Rahimi states the following: "... the spacer comprises at least one corrugated ring and several fingers which extend outwardly from the ring in order to maintain the ring in position with respect to the filter elements. The fingers are arranged to face the outer periphery of a filter element and may include spring clips. Because the spacer is in the shape of a large, corrugated ring and because the fingers extend outwardly to the periphery of the filter element, the spacer minimally hinders the flow of fluid between adjacent filter elements in the vicinity of the hub, eliminating stagnant areas and dead spots, and yet fully supports the filter elements. The spacer also minimizes contact between the spacer and the filter elements and therefore prevent damage to or excessive blinding of the filter elements." Rahimi also states that the "two rings 30,31 fully support the stack of filter elements 12 against the forces generated by the fluid and by gravity. Limiting the number of rings to two significantly reduces the impediments to fluid flow between the adjacent filter elements 12 and also reduces any blinding of the porous filters 20." He also states that "the outer ring 31 provides support at the outer edge of the filter elements where the forces exerted by the fluid and gravity can have their greatest effect." Again Rahimi states, "The spacers serve to maintain equal gaps between adjacent filter elements and to prevent deformation of one filter element towards an adjacent filter element should a force develop due to slight spacing differences or slight flow rate differences."

The fingers as described by Rahimi position the spacer with respect to the filter. The fingers as described in the present invention may provide a constant axial force to push the aft scroll ring 29 in contact with the radial nozzle 27 while allowing the radially outer end portion 25 of the ring finger 22 to slide to alleviate thermal stress. The present invention could be used in any situation where an integral retention devise is incapable due to large thermal gradients between the retention contact and the retaining ring attachment. The amount of force is determined by the angle Φ as described in the specification. This angle can be modified to vary the loading at each finger. The corrugated rings as described by Rahimi simply keep a constant gap between filter elements while minimally hindering the flow. The ring and ring "joggles" of the present invention allow for variations in thermal expansion or contraction between the radial nozzle 27 (retention ring attachment) and the radially inner end portion 24 (retention contact) of the ring finger 22. The Examiner refers to Rahimi's spacer as a "retention ring," but Rahimi never uses the words retention or retain. The retention ring of the present invention must deform elastically to retain the turbine scroll thus resulting in a constant axial force.

Rahimi fails to disclose or suggest a turbine scroll retention apparatus having a retainer ring; a plurality of ring fingers, each extending from the retainer ring; a finger joggle extending radially outward from a radially inner end portion of the ring finger; and a plurality of ring joggles, each integral to the retainer ring and each positioned such that one ring joggle is between each pair of adjacent ring fingers.

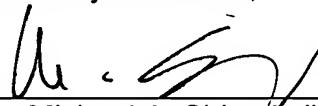
Independent claims 1 and 11 have been amended to include each of the above limitations, the combination of which is neither taught nor suggested by Rahimi. Dependent claims 5-8 and 10, and 12-17, being dependent upon and further limiting independent claims 1 and 11, respectively, should be allowable for that reason as well as the additional recitations each claim contains.

CONCLUSION

Applicant again would like to thank the Examiner for taking the time to discuss the proposed amendments in a telephone interview. Reconsideration and withdrawal of the Office Action with respect to claims 1, 5-8, 10-17 and 21-26 are requested. Applicant submits that claims 1, 5-8, 10-17 and 21-26 are now in condition for allowance.

In the event that the examiner wishes to discuss any aspect of this response, please contact the attorney at the telephone number identified below.

Respectfully submitted,

By: 

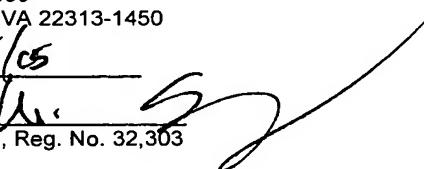
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